

IN THE CLAIMS:

Please amend claim 4 as follows:

- 1-2. (Cancelled)
3. (Previously Presented) An optical measurement device according to claim 4, wherein a plurality of measurement amount variations of the measurement object substance at the position designated are taken within a time period and displayed.
4. (Currently Amended) An optical measurement device which optically measures a measurement object substance within a brain of a subject, comprising:
 - illuminating means for sending out a light to ~~illuminating~~ illuminate the subject;
 - detecting means for detecting at least one reflected or scattered light from the illuminated subject;
 - determining means for determining a measurement amount variation of the measurement object substance at a measurement position according to a detection value detected at a detection position by the detecting means;
 - displaying means for displaying on a first image screen a mapping image formed by connecting points with an equal measurement amount variation as determined by the determining means; and
 - designating means for designating at least one position on the mapping image or in the brain of the subject so as to visually output in a second image or audibly output a numerical value of the measurement amount variation of the measurement object substance at the position designated.
5. (Previously Presented) An optical measurement device according to claim 4, wherein the light having a plurality of wavelengths and said reflected or scattered light is detected by the detecting means then separated into light components of corresponding plurality of wavelengths by the determining means.
6. (Previously Presented) An optical measurement device according to claim 4, wherein the measurement amount variation of the measurement object substance at the position designated is displayed in the first image screen.

7. (Previously Presented) An optical measurement device according to claim 4, wherein the measurement amount variation of the measurement object substance at the position designated is displayed in a second image screen.
8. (Previously Presented) An optical measurement device according to claim 4, wherein a pair of horizontal and vertical lines passing through the designated position are displayed on the first image screen.
9. (Previously Presented) An optical measurement device according to claim 8, scales for reading horizontal and vertical positions on the horizontal and vertical lines are displayed on the first image screen.
10. (Previously Presented) An optical measurement device according to claim 4, further comprising:
 - a sensor for sensing said at least one measurement position in the brain of the subject as designated by the designating means, said sensor being made from a piezoelectric element and placed under a contact or non-contact condition to the subject; and
 - optical fibers passing through the sensor to the subject for transmitting the light from the illuminating means onto the illumination position within the brain and for outputting a detection value detected by the detecting means at the detection position.
11. (Previously Presented) An optical measurement device according to claim 4, wherein the designating means designated a plurality of positions constituting a line on the mapping image so as to display in the second image measurement amount variations of the measurement object substance at the positions of the line.
12. (Previously Presented) An optical measurement device according to claim 4, wherein the designating means designated a position corresponding to one of a maximum value, a minimum value, a local maximum value and a local minimum value, said one of the maximum value, the minimum value, the local maximum

value and the local minimum value is displayed.

13. (Previously Presented) An optical measurement device according to claim 4, further comprising voice outputting means for outputting audibly the measurement amount variation of the measurement object substance at the position designated.
14. (Previously Presented) An optical measurement device according to claim 12, further comprising voice outputting means for outputting audibly said one of the maximum value, the minimum value, the local maximum value and the local minimum value.
15. (Previously Presented) An optical measurement device according to claim 4, wherein coordinates of the position designated are displayed.
16. (Previously Presented) An optical measurement device according to claim 4, wherein the determining means selectively determines one measurement amount variation of the measurement object substance by linearly interpolating detection values detected at detection portions by the detecting means.
17. (Previously Presented) An optical measurement device according to claim 10, further comprising:
 - a display for displaying on a first image screen a mapping image formed by connecting points with an equal measurement amount variation as determined by the determining means.
18. (Previously Presented) An optical measurement device according to claim 17, further comprising:
 - a pointing device for designating at least one position on the mapping image so as to visually output in a second image or audibly output a numerical value of the measurement amount variation of the measurement object substance at the position designated.

19. (Previously Presented) An optical measurement device according to claim 18, further comprising voice outputting means for outputting audibly the measurement amount variation of the measurement object substance at the position designated.